

AUTHOR INDEX

Under each name are listed, in chronological order of publication, all articles in which an author has participated.

- Adler, D.**
Inconsistency of the local field theory of massive spin-two particles. D. Adler, 289.
- Anyas-Weiss, N.**
A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.
- Aoki, K.**
On a cylindrical antenna in a homogeneous anisotropic medium. K. Aoki, 1239.
- Apparao, K. V. S. R.**
Structure of the band spectrum of the CuI molecule. I. Rotational structure of the *E* system of $^{63}\text{Cu}^{127}\text{I}$. P. R. Rao and K. V. S. R. Apparao, 2241.
Structure of the band spectrum of the CuI molecule. II. Rotational structure of the *C* and *D* systems of $^{63}\text{Cu}^{127}\text{I}$. P. R. Rao and K. V. S. R. Apparao, 2247.
- Archer, N. P.**
Direct measurements of the half-lives of some short-lived xenon and cesium isotopes. N. P. Archer and G. L. Keech, 1823.
- Armstrong, L. D.**
The thermal conductivity of pure lead. T. M. Dauphinee, L. D. Armstrong, and S. B. Woods, 2035.
- Armstrong, R. A.**
The reflection of slow electrons by hydrogen-covered single crystals of tungsten. R. A. Armstrong, 1753.
- Armstrong, R. L.**
Nuclear quadrupole resonance studies in cuprous oxide. K. R. Jeffrey and R. L. Armstrong, 2315.
- Armstrong, W.**
Beta-gamma angular correlation in ^{74}As . E. E. Habib, H. Ogata, and W. Armstrong, 1157.
- Arnett, W. D.**
Gravitational collapse and weak interactions. W. D. Arnett, 2553.
- Arns, R. G.**
Directional correlations in ^{127}I . J. F. Neeson, J. P. Roalsvig, and R. G. Arns, 1313.
- Azuma, R. E.**
A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.
- Bachynski, M. P.**
Measurements of anisotropic plasmas using a turnstile multiple-probe polarimeter. M. P. Bachynski, F. J. F. Osborne, and B. W. Gibbs, 1649.
- Baird, G. A.**
Solar minimum measurements of fast neutrons at high altitude. G. A. Baird and B. G. Wilson, 2131.
- Ballentine, L. E.**
Calculation of the electronic structure of liquid metals. L. E. Ballentine, 2533.
- Banville, M.**
A complete variational wave function for the ground state of ^3H and ^3He . M. Banville and P. D. Kunz, 2095.
- Barchewitz, P.**
Bande de vibration-rotation $\nu_1 + \nu_4$ de l'iode de méthyle trideutérié vers $4\,500\text{ cm}^{-1}$. Mise en évidence d'une résonance de Fermi. C. Joffrin, N. Van Thanh, et P. Barchewitz, 2695.
- Barrie, R.**
Phonon broadening of impurity spectral lines. III. Diagram technique. R. Barrie and R. G. Rystephanick, 109.
The distribution function for impurity states in semiconductors. R. Barrie and C. Y. Cheung, 2231.
- Barrington, R. E.**
Frequency variation in ionospheric cyclotron harmonic series obtained by the Alouette I satellite. R. E. Barrington and L. Herzberg, 987.
The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.

Barthakur, N.

The ice nucleation behavior of amino-acid particles. J. Maybank and N. Barthakur, 2431.

Bartholomew, G. A.

Neutron-capture γ -ray studies in $^{50}\text{Cr}(n, \gamma)^{51}\text{Cr}$. G. A. Bartholomew, E. D. Earle, and M. R. Gunye, 2111.

Barton, R.

Experimental evidence for the deformation of ^{138}Ba . P. J. Pan, Y. S. Horowitz, R. B. Moore, and R. Barton, 1029.

Bashkin, S.

Production de raies spectrales de He I et He II par l'excitation d'atomes He^+ accélérés au moyen d'un Van de Graaff. S. Bashkin et G. Beauchemin, S. J., 1603.

Basinski, J.

An intermediate donor level in n-type gallium arsenide. J. Basinski, 941.

Bass, A. M.

The forbidden $I^1\Sigma^- - X^1\Sigma^+$ absorption bands of carbon monoxide. G. Herzberg, J. D. Simmons, A. M. Bass, and S. G. Tilford, 8039.

Beauchemin, G.

Production de raies spectrales de He I et He II par l'excitation d'atomes He^+ accélérés au moyen d'un Van de Graaff. S. Bashkin et G. Beauchemin, S. J., 1603.

Belrose, J. S.

The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.

Benson, G. C.

Tabulation of integral functions used in the study of the Debye-Waller factor and its temperature derivative. G. C. Benson and E. K. Gill, 674.

Bercovitch, M.

Atmospheric contribution to the diurnal variation of the cosmic-ray meson intensity at Deep River. M. Bercovitch, 1329.

Bertie, J. E.

Infrared reflection of heavily doped p-type gallium arsenide. H. D. Riccius and J. E. Bertie, 1665.

Bhat, M. R.

Spin assignments for three resonances in ^{191}Ir . M. R. Bhat, 399.

Bhatnagar, K. L.

Effect of ion sheath on radiation in a magnetoionic medium. I. Source current parallel to the magnetostatic field. S. R. Seshadri and K. L. Bhatnagar, 1401.

Bhattacharjee, B.

Radio-frequency breakdown in a superimposed d-c. field. S. N. Sen and B. Bhattacharjee, 3273.

Bibby, M. J.

Hall-field electrotransport of carbon and nitrogen in α iron. M. J. Bibby and W. V. Youdelis, 2363.

Direct electric-field electrotransport of carbon and nitrogen in iron and iron alloys. M. J. Bibby, L. C. Hutchinson, and W. V. Youdelis, 2375.

Bigham, C. B.

The ratio of the direct to the cumulative yield of ^{136}Xe in the thermal neutron fission of ^{235}U , ^{238}U , ^{239}Pu , and ^{241}Pu . A. Okazaki, W. H. Walker, and C. B. Bigham, 237.

Billingsley, J. B.

Numerical solutions to electromagnetic scattering from strips, finite wedges, and notched circular cylinders. J. B. Billingsley and G. Sinclair, 3217.

Blackmore, E. W.

Properties of levels at 6.69 and 6.88–6.89 MeV in ^{28}Si . R. J. A. Levesque, R. W. Ollerhead, E. W. Blackmore, and J. A. Kuehner, 1087.

Blackwell, J. H.

Axisymmetric resistive instabilities in the hard-core pinch. R. J. Hosking and J. H. Blackwell, 1037.

Bourret, R.

Stochastic systems equivalent to second quantized systems: Examples. R. Bourret, 2519.

Brace, L. H.

The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.

Breithaupt, R. W.

Diffraction by an impedance half-plane in an anisotropic plasma. R. W. Breithaupt, 2915.

Brown, R. J. C.

A simple density matrix approach to atomic spectra. F. D. Peat and R. J. C. Brown, 1349.

Buckmaster, H. A.

Further tables of angular momentum transformation matrix elements $d_{m'm}^{(j)}(\beta)$ ($j = 1, 3, 5$). H. A. Buckmaster, 2525.

Burrows, J. R.

Lifetimes of low-energy electrons ($E \sim 40$ keV) in the outer radiation zone at magnetically quiet times. I. B. McDiarmid and J. R. Burrows, 669.

Temporal variations of outer radiation zone electron intensities at 1 000 km. I. B. McDiarmid and J. R. Burrows, 1361.

Butler, J. P.

Excitation curves for the $(n, 2n)$, (n, p) , and $(n, n\alpha)$ reactions of ^{64}Cu . D. C. Santry and J. P. Butler, 1183.

Cameron, A. G. W.

Thermonuclear reactions in medium and heavy nuclei. J. W. Truran, C. J. Hansen, A. G. W. Cameron, and A. Gilbert, 151.

The approach to nuclear statistical equilibrium. J. W. Truran, A. G. W. Cameron, and A. Gilbert, 563.

Solar evolution with varying G . D. Ezer and A. G. W. Cameron, 593.

Cooling and detectability of neutron stars. S. Tsuruta and A. G. W. Cameron, 1863.

Some effects of nuclear forces on neutron-star models. S. Tsuruta and A. G. W. Cameron, 1895.

Campbell, C. K.

Anisotropy of the energy gap in superconducting lead-bismuth alloys. C. K. Campbell, R. C. Dynes, and D. G. Walmsley, 2601.

Carlson, L. E.

A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.

Chakravartty, S. C.

Electron spin resonance of Fe^{+2} in cordierite. N. E. Hedgecock and S. C. Chakravartty, 2749.

Chambers, G. Li.

Diffraction by a conducting half-plane in plasma. Li. G. Chambers, 1207.

Champness, C. H.

The Hall and Seebeck effects in nonstoichiometric bismuth telluride. C. H. Champness and A. L. Kipling, 769.

Electron transport and thermoelectric properties of n-type $\text{Bi}_{1.75}\text{Sb}_{0.25}\text{Te}_2$. W. B. Muir, P. T. Chiang, and C. H. Champness, 2797.

Chapman, G. D.

Sensitized fluorescence in vapors of alkali metals. VIII. Energy transfer between the 4^2P levels in potassium induced by inelastic collisions. G. D. Chapman and L. Krause, 753.

Charlesworth, A. M.

A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.

Cherrin, W.

The electron capture to negative electron emission branching ratio for ^{140}Pr decay. I. H. Crocker, R. D. Werner, and W. Cherrin, 409.

Cheung, C. Y.

The distribution function for impurity states in semiconductors. R. Barrie and C. Y. Cheung, 2231.

Chew, C. K.

On the degeneracy problem in $\text{Su}(3)$. C. K. Chew and R. T. Sharp, 2789.

Chiang, P. T.

Tellurium single-crystal growth by zone-melting and Bridgman methods. P. T.-I. Chiang, 1195.

Electron transport and thermoelectric properties of n-type $\text{Bi}_{1.75}\text{Sb}_{0.25}\text{Te}_2$. W. B. Muir, P. T. Chiang, and C. H. Champness, 2797.

Cho, C. W.

Induced infrared absorption of deuterium in deuterium - foreign gas mixtures. S. T. Pai, S. P. Reddy, and C. W. Cho, 2893.

Chu, Y.

Remote measurement of ionospheric absorption using meteor signals. Y. Chu, E. L. Vogan, and P. A. Forsyth, 2173.

Clarke, W. B.

The thermal-neutron fission yields of ^{232}Th . J. W. Harvey, W. B. Clarke, H. G. Thode, and R. H. Tomlinson, 1011.

Cohen, M.

Approximate molecular orbitals. I. The $1s\sigma_g$ and $2p\sigma_g$ states of H_2^+ . M. Cohen and R. P. McEachran, 2809.

Approximate molecular orbitals. II. The $2p\pi_u$ and $3d\pi_g$ states of H_2^+ . M. Cohen, B. H. Dorrell, and R. P. McEachran, 2827.

- Hartree-Fock wave functions for excited states. II. Simplification of the orbital equations. M. Cohen and P. S. Kelly, 3227.
- Coombes, C. A.**
A scalar pion-nucleon interaction. C. A. Coombes, 285.
- Copley, L. A.**
Cross sections and resonance integrals for the neutron activation of ^{104}Rh . W. H. Walker and L. A. Copley, 1985.
- Courtemanche, R.**
The reactor neutron capture cross section of ^{124}Sb . R. Courtemanche, T. A. Eastwood, and R. D. Werner, 2956.
- Crane, A.**
The induced infrared absorption spectrum of solid deuterium and solid hydrogen deuteride. A. Crane and H. P. Gush, 373.
- Creutzberg, F.**
The absorption spectrum of the P_2 molecule in the vacuum ultraviolet. F. Creutzberg, 1583.
- Critchlow, P. R.**
The velocity of elastic waves in iodine. R. M. Leith and P. R. Critchlow, 3069.
- Crocker, I. H.**
The electron capture to negative electron emission branching ratio for ^{142}Pr decay. I. H. Crocker, R. D. Werner, and W. Cherrin, 409.
- Curzon, F. L.**
Radial hydromagnetic oscillations of a rotating plasma cylinder. F. L. Curzon, 433.
- Czajkowski, M.**
Sensitized fluorescence in vapors of alkali metals. V. Energy transfer in collisions between cesium and inert gas atoms. M. Czajkowski, D. A. McGillis, and L. Krause, 91.
Sensitized fluorescence in vapors of alkali metals. VII. Energy transfer in rubidium-cesium collisions. M. Czajkowski, D. A. McGillis, and L. Krause, 741.
- Daniels, J. M.**
Intermediate-state reorientation of oriented nuclei. J. M. Daniels and S. K. Misra, 1965.
- Dauphinee, T. M.**
The thermal conductivity of pure lead. T. M. Dauphinee, L. D. Armstrong, and S. B. Woods, 2035.
- Davies, J. A.**
Anomalous penetration of xenon in tungsten crystals—A diffusion effect. J. A. Davies and P. Jespersgård, 1631.
- Davies, R. H.**
Validity of the Jarman-Sandeman series for calculating potential curves of diatomic molecules. R. H. Davies and J. T. Vanderslice, 219.
- Davis, J.**
A note on scattering of cylindrical waves by a circular cylinder. N. R. Zitron and J. Davis, 2941.
- de la Cruz, V.**
On a certain nonlocal potential. V. de la Cruz, B. A. Orman, and M. Razavy, 629.
- Delisle, C.**
Images normales et strioscopiques formées par un réseau et la figure de diffraction $(\sin X)/X$. C. Delisle, 1795.
- Deser, S.**
The massive spin-two field. S. Deser, J. Trubatch, and S. Trubatch, 1715.
- de Takacsy, N.**
Low-lying negative parity states in the $A = 17$ nuclei. B. Margolis and N. de Takacsy, 1431.
- Dionne, G. F.**
Electron paramagnetic resonance of Ti^{3+} ions in $\text{TiAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$. J. A. MacKinnon and G. F. Dionne, 2329.
- Doering, J. P.**
Experimental measurement of the energy distribution of secondary electrons in an aurora. J. P. Doering and W. G. Fastie, 2948.
- Donohoe, J.**
Electron collision frequency in nitric oxide. M. H. Mentzoni and J. Donohoe, 693.
- Dorrell, B. H.**
Approximate molecular orbitals. II. The $2p\pi_a$ and $3d\pi_g$ states of H_2^+ . M. Cohen, B. H. Dorrell, and R. P. McEachran, 2827.
- Dorward, R. C.**
Directional solidification of aluminium-copper alloys in a magnetic field. W. V. Youdelis and R. C. Dorward, 139.
- Dosso, H. W.**
A plane-wave analogue model for studying electromagnetic variations. H. W. Dosso, 67.
A multilayer conducting earth in the field of plane waves. H. W. Dosso, 81.
Further results for a multilayer conducting earth in the field of plane waves. H. W. Dosso, 1197.
The electric and magnetic fields at the surface of a flat conducting earth in the near field of an oscillating line current. H. W. Dosso, 1923.

- Douglas, A. E.**
The $b\ ^1\Sigma^+-X\ ^2\Sigma^-$ band system of NF. A. E. Douglas and W. E. Jones, 2251.
- Durie, R. A.**
The electronic emission spectrum and molecular constants of iodine monofluoride. R. A. Durie, 337.
- Dyment, J. C.**
Spectral diffusion studies of the Cr^{3+} ion using electron spin echoes. J. C. Dyment, 637.
- Dynes, R. C.**
Anisotropy of the energy gap in superconducting lead-bismuth alloys. C. K. Campbell, R. C. Dynes, and D. G. Walmsley, 2601.
- Earle, E. D.**
Neutron-capture γ -ray studies in $^{50}\text{Cr}(n, \gamma)^{51}\text{Cr}$. G. A. Bartholomew, E. D. Earle, and M. R. Gunye, 2111.
- Earnshaw, J. W.**
Mass 1 peak in ionization sources at very low pressures. J. P. Hobson and J. W. Earnshaw, 2531.
- Eastwood, T. A.**
The reactor neutron capture cross section of ^{123}Sb . R. Courtemanche, T. A. Eastwood, and R. D. Werner, 2956.
- Eichholz, G. G.**
Corrugated-plate spark counters. G. G. Eichholz and W. M. Templeton, 229.
- Ezer, D.**
Solar evolution with varying G . D. Ezer and A. G. W. Cameron, 593.
- Fastie, W. G.**
Experimental measurement of the energy distribution of secondary electrons in an aurora. J. P. Doering and W. G. Fastie, 2948.
- Felenbok, P.**
Étude théorique des perturbations homogènes. I. Application aux interactions II-II et Δ - Δ de NO. P. Felenbok et H. Lefebvre-Brion, 1677.
- Forsyth, P. A.**
Remote measurement of ionospheric absorption using meteor signals. Y. Chu, E. L. Vogan, and P. A. Forsyth, 2173.
- Fortin, E.**
Hall effect and electrical conductivity of Cu_2O monocrystals. E. Fortin and F. L. Weichman, 1551.
- Fraga, S.**
Méthode généralisée de variation. I. S. Fraga, 303.
Méthode généralisée de variation. II. S. Fraga, 307.
Some characteristic values of Hartree-Fock functions. E. B. Priestley and S. Fraga, 1933.
Charge densities at the nucleus. G. Malli and S. Fraga, 3131.
- Fritze, K.**
The half-life of rubidium-87. C. C. McMullen, K. Fritze, and R. H. Tomlinson, 3033.
- Gagné, J.-M.**
Déplacement isotopique relatif des isotopes 238, 235, et 233 de l'uranium et moments quadrupolaires intrinsèques des isotopes 238 et 236. J.-M. Gagné, 423.
Nouvelle méthode très précise d'étalonnage des spectres enregistrés à l'aide du spectromètre photoélectrique Fabry-Pérot. J.-M. Gagné, J. M. Helbert, et S. Gerstenkorn, 681.
- Galejs, J.**
Guided waves supported by layers of a lossy compressible plasma. J. Galejs, 2875.
- Garton, W. R. S.**
On the sp^3 configurations and configuration-mixing in the first spectra of indium (In I) and thallium (Tl I). W. R. S. Garton, W. H. Parkinson, and E. M. Reeves, 1745.
- Gault, W. A.**
The decay over long distances of rocket-released lithium due to diffusion, winds, and chemical reactions. W. A. Gault and H. N. Rundle, 1099.
- Geldart, D. J. W.**
The screening function of an interacting electron gas. D. J. W. Geldart and S. H. Vosko, 2137.
- Gerstenkorn, S.**
Nouvelle méthode très précise d'étalonnage des spectres enregistrés à l'aide du spectromètre photoélectrique Fabry-Pérot. J.-M. Gagné, J. M. Helbert, et S. Gerstenkorn, 681.
- Gibbs, B. W.**
Measurements of anisotropic plasmas using a turnstile multiple-probe polarimeter. M. P. Bachynski, F. J. F. Osborne, and B. W. Gibbs, 1649.
- Giguere, J. C.**
Acoustic pressure distributions and energy reflections in a fluid-filled cylinder. J. C. Giguere, 1669.
- Gilbert, A.**
Thermonuclear reactions in medium and heavy nuclei. J. W. Truran, C. J. Hansen, A. G. W. Cameron, and A. Gilbert, 151.
The approach to nuclear statistical equilibrium. J. W. Truran, A. G. W. Cameron, and A. Gilbert, 563.

- Gill, E. K.**
Exact thermodynamic relations for the internal energy, entropy, and heat capacity of a clamped crystal. E. K. Gill and J. Grindlay, 431.
Tabulation of integral functions used in the study of the Debye-Waller factor and its temperature derivative. G. C. Benson and E. K. Gill, 674.
- Goble, D. F.**
Liquid helium and the properties of finite Bose-Einstein assemblies. D. F. Goble and L. E. H. Trainor, 27.
- Gold, L. W.**
Dependence of crack formation on crystallographic orientation for ice. L. W. Gold, 2757.
- Goodfellow, J. F.**
On the superconductivity approximation for the nuclear pairing interaction. J. F. Goodfellow and Y. Nogami, 1321.
- Gordon, S.**
Equilibrium computations for multicomponent plasmas. F. J. Zeleznik and S. Gordon, 877.
- Gray, C. G.**
Calculation of the pressure broadening of rotational Raman lines due to multipolar and dispersion interaction. C. G. Gray and J. Van Kranendonk, 2411.
- Greenspan, D.**
Resolution of classical capacity problems by means of a digital computer. D. Greenspan, 2605.
- Gregory, B. C.**
Free-fall diffusion in a discharge afterglow. B. C. Gregory, 2615.
- Grindlay, J.**
Tables of Debye functions. R. Howard and J. Grindlay, 45.
Exact thermodynamic relations for the internal energy, entropy, and heat capacity of a clamped crystal. E. K. Gill and J. Grindlay, 431.
- Gunye, M. R.**
Neutron-capture γ -ray studies in $^{50}\text{Cr}(n, \gamma)^{51}\text{Cr}$. G. A. Bartholomew, E. D. Earle, and M. R. Gunye, 2111.
- Gush, H. P.**
The induced infrared absorption spectrum of solid deuterium and solid hydrogen deuteride. A. Crane and H. P. Gush, 573.
The collision-induced fundamental and first overtone bands of oxygen and nitrogen. M. M. Shapiro and H. P. Gush, 949.
- Habib, E. E.**
Beta-gamma angular correlation in ^{74}As . E. E. Habib, H. Ogata, and W. Armstrong, 1157.
- Hagg, E. L.**
A novel ionospheric cyclotron resonance phenomenon observed on Alouette I data. D. B. Muldrew and E. L. Hagg, 925.
- Hainsworth, F. N.**
The structural basis of ferroelectricity in colemanite. F. N. Hainsworth and H. E. Petch, 3083.
- Hamilton, J. H.**
The IEC method and conversion coefficients of the 605-keV transition in ^{134}Ba . E. F. Zganjar and J. H. Hamilton, 549.
- Hansen, C. J.**
Thermonuclear reactions in medium and heavy nuclei. J. W. Truran, C. J. Hansen, A. G. W. Cameron, and A. Gilbert, 151.
- Hardy, W. N.**
Nuclear spin relaxation in gaseous H_2 at low densities. W. N. Hardy, 265.
- Harland, H. B.**
Conduction band of GaSb. H. B. Harland and J. C. Woolley, 2715.
- Hartmann, B.**
Laser lines from CO_2 in the 11-18 micron region. B. Hartmann and B. Kleman, 1609.
- Hartz, T. R.**
The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.
- Harvey, J. W.**
The thermal-neutron fission yields of ^{230}Th . J. W. Harvey, W. B. Clarke, H. G. Thode, and R. H. Tomlinson, 1011.
- Hastings, L.**
The ionoluminescence of $\text{Zn}_2\text{SiO}_4\text{:Mn}$ under negative and molecular ion bombardment. A. van Wijngaarden, L. Hastings, and E. S. Koteles, 789.
- Hay, D. R.**
Internal gravity-shear waves in the troposphere. III. Perturbation of smoke trails. K. Naito and D. R. Hay, 2287.
- Hedgecock, N. E.**
ESR spectra of Fe^{+3} in single crystals of andalusite. F. Holuj, J. R. Thyer, and N. E. Hedgecock, 509.
Electron spin resonance of Fe^{+3} in cordierite. N. E. Hedgecock and S. C. Chakravarty, 2749.

- Helbert, J. M.**
Nouvelle méthode très précise d'étalonnage des spectres enregistrés à l'aide du spectromètre photoélectrique Fabry-Pérot. J.-M. Gagné, J. M. Helbert, et S. Gerstenkorn, 681.
- Herzberg, G.**
The forbidden $I^1\Sigma^-X^1\Sigma^+$ absorption bands of carbon monoxide. G. Herzberg, J. D. Simmons, A. M. Bass, and S. G. Tilford, 3039.
- Herzberg, L.**
Frequency variation in ionospheric cyclotron harmonic series obtained by the Alouette I satellite. R. E. Barrington and L. Herzberg, 987.
- Hobson, J. P.**
Mass 1 peak in ionization sources at very low pressures. J. P. Hobson and J. W. Earnshaw, 2531.
- Hoelke, C. W.**
Electron microscope observation of atomic planes and atomic positions in germanium. J. R. Parsons and C. W. Hoelke, 2685.
- Hollis Hallett, A. C.**
The static dielectric constant of NaCl, KCl, and KBr at temperatures between 4.2 °K and 300 °K. M. C. Robinson and A. C. Hollis Hallett, 2211.
- Holuj, F.**
The spin Hamiltonian and intensities of the ESR spectra originating from large zero-field effects on 5S states. F. Holuj, 503.
ESR spectra of Fe^{2+} in single crystals of andalusite. F. Holuj, J. R. Thyer, and N. E. Hedgecock, 509.
- Horowitz, Y. S.**
Experimental evidence for the deformation of ^{138}Ba . P. J. Pan, Y. S. Horowitz, R. B. Moore, and R. Barton, 1029.
- Hosking, R. J.**
Axisymmetric resistive instabilities in the hard-core pinch. R. J. Hosking and J. H. Blackwell, 1037.
- Hougen, J. T.**
A group-theoretical treatment of vibrational, torsional, and rotational motions in $CH_2=C=SiH_2$. J. T. Hougen, 1169.
- Howard, R.**
Tables of Debye functions. R. Howard and J. Grindlay, 45.
- Hughes, L. B.**
Neutron separation energies of ^{149}Nd – ^{144}Nd , ^{149}Sm – ^{150}Sm , and ^{164}Dy – ^{165}Dy . L. B. Hughes, T. J. Kennett, W. V. Prestwich, and B. J. Wall, 919.
The level structure of ^{104}Rh observed in thermal neutron capture. L. B. Hughes, T. J. Kennett, and W. V. Prestwich, 2041.
- Huntley, D. J.**
The dielectric constant of UO_2 and its variation with porosity. D. J. Huntley, 2952.
- Hurd, R. A.**
Admittance of a long linear antenna. R. A. Hurd, 1723.
- Hussain, M.**
1001 reactions of the Ar and Kr ion doublets. M. Hussain and L. Kerwin, 57.
- Hussain, Z.**
Dependence of vibrational constants of diatomic hydrides on electronegativity. Z. Hussain, 917.
- Hutchinson, L. C.**
Direct electric-field electrotransport of carbon and nitrogen in iron and iron alloys. M. J. Bibby, L. C. Hutchinson, and W. V. Youdelis, 2375.
- Iglesias, L.**
The third spectrum of rhodium (Rh III). L. Iglesias, 895.
- Irwin, J. C.**
Relative transition probabilities in neon. J. C. Irwin and R. A. Nodwell, 1781.
- Jackson, K. P.**
A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}Al(p, \gamma)^{28}Si$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.
- Jammu, K. S.**
Pressure broadening of the rotational Raman lines of some simple gases. K. S. Jammu, G. E. St. John, and H. L. Welsh, 797.
- Jan, J.-P.**
On the Fermi surface of beta brass. J.-P. Jan, 1787.
- Jeffrey, K. R.**
Nuclear quadrupole resonance studies in cuprous oxide. K. R. Jeffrey and R. L. Armstrong, 2315.
- Jespersgård, P.**
Anomalous penetration of xenon in tungsten crystals—A diffusion effect. J. A. Davies and P. Jespersgård, 1631.

- Jessop, A. M.**
Heat flow in a system of cylindrical symmetry. A. M. Jessop, 677.
Erratum: Heat flow in a system of cylindrical symmetry. A. M. Jessop, 679.
- Joffrin, C.**
Bande de vibration-rotation $\nu_1 + \nu_4$ de l'iodure de méthyle trideutéérié vers $4\,500\text{ cm}^{-1}$. Mise en évidence d'une résonance de Fermi. C. Joffrin, N. Van Thanh, et P. Barchewitz, 2695.
- Johns, M. W.**
The decay of ^{89}Rb . J. E. Kitching and M. W. Johns, 2661.
- Jones, A. V.**
Studies of auroral hydrogen emissions in west-central Canada. II. Variations in the intensity ratio between the H_β line and the $\lambda\,4\,709\text{ N}_2^+$ band. L. E. Montbriand and A. V. Jones, 3259.
- Jones, F. W.**
Man-made telluric micropulsations. F. W. Jones and A. M. Kelly, 3025.
- Jones, W. E.**
The $b^1\Sigma^+-X^3\Sigma^-$ band system of NF. A. E. Douglas and W. E. Jones, 2251.
- Judek, B.**
The charge spectrum and interactions of relativistic heavy nuclei in the primary cosmic radiation. B. Judek and I. J. van Heerden, 1121.
- Jull, E. V.**
Diffraction by a wide aperture in an anisotropic medium. E. V. Jull, 713.
- Jungen, Ch.**
Vacuum-ultraviolet emission and absorption spectrum of the NO molecule: The $^3\Delta$ states and their interactions. Ch. Jungen, 3197.
- Karl, G.**
On the vibrational frequencies of the hydrogen molecule. J. D. Poll and G. Karl, 1467.
- Keech, G. L.**
Direct measurements of the half-lives of some short-lived xenon and cesium isotopes. N. P. Archer and G. L. Keech, 1823.
- Kelly, A. M.**
Man-made telluric micropulsations. F. W. Jones and A. M. Kelly, 3025.
- Kelly, P. S.**
Hartree-Fock wave functions for excited states. II. Simplification of the orbital equations. M. Cohen and P. S. Kelly, 3227.
- Kennett, T. J.**
Neutron separation energies of ^{143}Nd - ^{144}Nd , ^{149}Sm - ^{150}Sm , and ^{164}Dy - ^{165}Dy . L. B. Hughes, T. J. Kennett, W. V. Prestwich, and B. J. Wall, 919.
The level structure of ^{190}Rh observed in thermal neutron capture. L. B. Hughes, T. J. Kennett, and W. V. Prestwich, 2041.
- Kerwin, L.**
1001 reactions of the Ar and Kr ion doublets. M. Hussain and L. Kerwin, 57.
- Kipling, A. L.**
The Hall and Seebeck effects in nonstoichiometric bismuth telluride. C. H. Champness and A. L. Kipling, 769.
- Kirkaldy, J. S.**
Diffusion in multicomponent metallic systems. IX. Intrinsic diffusion behavior and the Kirkendall effect in ternary substitutional solutions. J. S. Kirkaldy and J. E. Lane, 2059.
- Kirkby, P.**
Faraday-cup measurement of proton total reaction cross sections at 100 MeV. P. Kirkby and W. T. Link, 1847.
- Kitching, J. E.**
The decay of ^{89}Rb . J. E. Kitching and M. W. Johns, 2661.
- Kleman, B.**
Laser lines from CO_2 in the 11-18 micron region. B. Hartmann and B. Kleman, 1609.
- Knollman, G. C.**
Quantum cell model for He II at nonzero temperature. G. C. Knollman, 2775.
- Kohlmann, L.**
New alpha-decay barrier penetrabilities with Igo potential: Even-mass nuclei. L. Kohlmann and T. Vörös, 1479.
New alpha-decay barrier penetrabilities with Igo potential: Odd-mass nuclei. L. Kohlmann and T. Vörös, 3047.
- Koteles, E. S.**
The ionoluminescence of $\text{Zn}_2\text{SiO}_4\text{:Mn}$ under negative and molecular ion bombardment. A. van Wijngaarden, L. Hastings, and E. S. Koteles, 789.
- Krause, L.**
Sensitized fluorescence in vapors of alkali metals. V. Energy transfer in collisions between cesium and inert gas atoms. M. Czajkowski, D. A. McGillis, and L. Krause, 91.
Sensitized fluorescence in vapors of alkali metals. VI. Energy transfer in collisions between rubidium and inert gas atoms. B. Pitre, F. S. C., A. G. A. Rae, and L. Krause, 731.

- Sensitized fluorescence in vapors of alkali metals. VII. Energy transfer in rubidium-cesium collisions. M. Czajkowski, D. A. McGillis, and L. Krause, 741.
- Sensitized fluorescence in vapors of alkali metals. VIII. Energy transfer between the Δ^2P levels in potassium induced by inelastic collisions. G. D. Chapman and L. Krause, 753.
- Krishnamachari, S. L. N. G.**
A new band system of AlO. S. L. N. G. Krishnamachari, N. A. Narasimham, and M. Singh, 2513.
- Kuehner, J. A.**
Properties of levels at 6.69 and 6.88–6.89 MeV in ^{28}Si . R. J. A. Lévesque, R. W. Ollerhead, E. W. Blackmore, and J. A. Kuehner, 1087.
- Kunz, P. D.**
A complete variational wave function for the ground state of ^3H and ^3He . M. Banville and P. D. Kunz, 2095.
- Lader, L. J.**
Method of reducing side lobes of directive antennas. L. J. Lader and J. B. Winderman, 2765.
- Lagerqvist, A.**
Absorption spectrum of the NO molecule. VI. Band structures below 1 600 Å, Rydberg states $C^1\Pi$, $D^3\Sigma^+$, $K^1\Pi$, $M^3\Sigma^+$, $S^3\Sigma^+$, non-Rydberg states $B^1\Pi$, $L^1\Pi$ and their interactions. A. Lagerqvist and E. Miescher, 1525.
- Lalović, B.**
A Ge(Li) counter investigation of the gamma-ray decay of ^{28}Si produced in the reaction $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$. R. E. Azuma, L. E. Carlson, A. M. Charlesworth, K. P. Jackson, N. Anyas-Weiss, and B. Lalović, 3075.
- Lane, J. E.**
Diffusion in multicomponent metallic systems. IX. Intrinsic diffusion behavior and the Kirkendall effect in ternary substitutional solutions. J. S. Kirkaldy and J. E. Lane, 2059.
- Laubitz, M. J.**
The thermal conductivity of platinum between 300 and 1 000 °K. M. J. Laubitz and M. P. van der Meer, 3173.
- Laxpati, S.**
Comments on the propagation characteristics of a wave guide with glide reflection symmetry. R. Mitra and S. Laxpati, 2516.
- L'Ecuyer, J.**
La réaction $^{23}\text{Na}(p, \gamma)^{24}\text{Mg}$ pour des protons d'énergie inférieure à 500 keV. J. L'Ecuyer et R. J. A. Lévesque, 2201.
- Lee, Y. Y.**
Theory of the spin-lattice interaction in paramagnetic salts of iron-group ions. J. Van Kranendonk and Y. Y. Lee, 1613.
- Lefavre, J.**
Énergie des niveaux de vibration de l'ion moléculaire D_3^+ . J. Lefavre, 2947.
- Lefebvre-Brion, H.**
Étude théorique des perturbations homogènes. I. Application aux interactions Π - Π et Δ - Δ de NO. P. Felenbok et H. Lefebvre-Brion, 1677.
- Leith, R. M.**
The velocity of elastic waves in iodine. R. M. Leith and P. R. Critchlow, 3069.
- Lepard, D. W.**
The Coriolis \dagger sum rules. D. W. Lepard, 461.
The ν_{10} and ν_{11} Raman bands of gaseous ethane. D. W. Lepard, D. E. Shaw, and H. L. Welsh, 2353.
- Lévesque, R. J. A.**
Properties of levels at 6.69 and 6.88–6.89 MeV in ^{28}Si . R. J. A. Lévesque, R. W. Ollerhead, E. W. Blackmore, and J. A. Kuehner, 1087.
La réaction $^{23}\text{Na}(p, \gamma)^{24}\text{Mg}$ pour des protons d'énergie inférieure à 500 keV. J. L'Ecuyer et R. J. A. Lévesque, 2201.
- Link, W. T.**
Faraday-cup measurement of proton total reaction cross sections at 100 MeV. P. Kirkby and W. T. Link, 1847.
- Lipsett, F. R.**
Fluorescence, defect fluorescence, and phosphorescence spectra at 4.2 °K of undoped and β -methyl naphthalene-doped naphthalene crystals. F. R. Lipsett and G. Macpherson, 1485.
- Lyon, G. F.**
A method of determining cross-correlation coefficients of time-varying signals. F. H. Palmer and G. F. Lyon, 415.
- McDiarmid, I. B.**
Lifetimes of low-energy electrons ($E \sim 40$ keV) in the outer radiation zone at magnetically quiet times. I. B. McDiarmid and J. R. Burrows, 669.
Temporal variations of outer radiation zone electron intensities at 1 000 km. I. B. McDiarmid and J. R. Burrows, 1361.
The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.

McEachran, R. P.

Approximate molecular orbitals. I. The $1\sigma_g$ and $2p\sigma_u$ states of H_2^+ . M. Cohen and R. P. McEachran, 2809.

Approximate molecular orbitals. II. The $2p\pi_u$ and $3d\pi_g$ states of H_2^+ . M. Cohen, B. H. Dorrell, and R. P. McEachran, 2827.

McGillis, D. A.

Sensitized fluorescence in vapors of alkali metals. V. Energy transfer in collisions between cesium and inert gas atoms. M. Czajkowski, D. A. McGillis, and L. Krause, 91.

Sensitized fluorescence in vapors of alkali metals. VII. Energy transfer in rubidium-cesium collisions. M. Czajkowski, D. A. McGillis, and L. Krause, 741.

McIntosh, B. A.

Meteor radar statistics. II. P. M. Millman and B. A. McIntosh, 1593.

The determination of meteor mass distribution from radar echo counts. B. A. McIntosh, 2729.

McKee, B. T. A.

Influence of crystallinity on positron-annihilation angular correlation in Teflon. I. K. MacKenzie and B. T. A. McKee, 435.

MacKenzie, I. K.

Influence of crystallinity on positron-annihilation angular correlation in Teflon. I. K. MacKenzie and B. T. A. McKee, 435.

MacKinnon, J. A.

Electron paramagnetic resonance of Ti^{3+} ions in $TiAl(SO_4)_2 \cdot 12H_2O$. J. A. MacKinnon and G. F. Dionne, 2329.

McLaren, E. H.

Radiation effects in precision resistance thermometry. I. Radiation losses in transparent thermometer sheaths. E. H. McLaren and E. G. Murdock, 2631.

Radiation effects in precision resistance thermometry. II. Illumination effect on temperature measurement in water triple-point cells packed in crushed ice. E. H. McLaren and E. G. Murdock, 2653.

McMullen, C. C.

The half-life of rubidium-87. C. C. McMullen, K. Fritze, and R. H. Tomlinson, 3033.

Macpherson, G.

Fluorescence, defect fluorescence, and phosphorescence spectra at 4.2 °K of undoped and β -methylnaphthalene-doped naphthalene crystals. F. R. Lipsett and G. Macpherson, 1485.

Malli, G. L.

Accurate analytical self-consistent-field (SCF) Hartree-Fock (H-F) wave functions for second-row atoms. G. L. Malli, 3121.

Charge densities at the nucleus. G. Malli and S. Fraga, 3131.

Malm, H. L.

The low-temperature thermal conductivity, electrical resistivity, and thermoelectric power of dilute silver alloys with manganese. H. L. Malm and S. B. Woods, 2293.

Margolis, B.

Low-lying negative parity states in the $A = 17$ nuclei. B. Margolis and N. de Takacsy, 1431.

Mark, S. K.

The scattering of protons on 7Li , 9Be , and ^{12}C at 100 MeV. S. K. Mark, P. M. Portner, and R. B. Moore, 2961.

Martin, D. L.

Continuous-heating adiabatic calorimeter for the range 300 to 475 °K—The specific heat of $\alpha-Al_2O_3$. D. L. Martin and R. L. Snowden, 1449.

Matsumura, T.

The electrical properties of alumina at high temperatures. T. Matsumura, 1685.

Matuura, N.

The condition of the upper atmosphere based on the electron density profiles of the F region. N. Matuura, 175.

Matzke, Hj.

Ion-bombardment-induced radiation damage in some ceramics and ionic crystals: Determined by electron diffraction and gas release measurements. Hj. Matzke and J. L. Whitton, 995.

The effect of crystallinity and bombardment dose on the penetration of 40-keV xenon ions in ionic crystals and ceramics. J. L. Whitton and Hj. Matzke, 2905.

Maybank, J.

The ice nucleation behavior of amino-acid particles. J. Maybank and N. Barthakur, 2431.

Mentzoni, M. H.

Electron collision frequency in nitric oxide. M. H. Mentzoni and J. Donohoe, 693.

Merer, A. J.

The absorption spectrum of CNC. A. J. Merer and D. N. Travis, 353.

Spin-orbit coupling in the $A^1\Delta$ state of CCl. A. J. Merer, D. N. Travis, and J. K. G. Watson, 447.

Absorption spectra of HCCl and DCCl. A. J. Merer and D. N. Travis, 525.

Rotational analysis of bands of the HCF molecule. A. J. Merer and D. N. Travis, 1541.

- Miescher, E.**
Absorption spectrum of the NO molecule. VI. Band structures below 1 600 Å, Rydberg states C^{Π} , D^{Σ^+} , K^{Π} , M^{Σ^+} , S^{Σ^+} , non-Rydberg states B^{Π} , L^{Π} and their interactions. A. Lagerqvist and E. Miescher, 1525.
- Millar, R. F.**
Plane wave spectra in grating theory. V. Scattering by a semi-infinite grating of isotropic scatterers. R. F. Millar, 2839.
- Millman, P. M.**
Meteor radar statistics. II. P. M. Millman and B. A. McIntosh, 1593.
- Misra, S. K.**
Intermediate-state reorientation of oriented nuclei. J. M. Daniels and S. K. Misra, 1965.
- Mittra, R.**
Comments on the propagation characteristics of a wave guide with glide reflection symmetry. R. Mittra and S. Laxpati, 2516.
- Montbriand, L. E.**
Studies of auroral hydrogen emissions in west-central Canada. II. Variations in the intensity ratio between the H_{β} line and the λ 4709 N_2^+ band. L. E. Montbriand and A. V. Jones, 3259.
- Moore, R. A.**
The calculation of the electron-ion matrix element by the spherical cellular method: Na. R. Taylor, R. A. Moore, and S. H. Vosko, 1995.
- Moore, R. B.**
Experimental evidence for the deformation of ^{138}Ba . P. J. Pan, Y. S. Horowitz, R. B. Moore, and R. Barton, 1029.
The scattering of protons on ^7Li , ^9Be , and ^{12}C at 100 MeV. S. K. Mark, P. M. Portner, and R. B. Moore, 2961.
- Morrow, B. A.**
The absorption spectrum of SH and SD in the vacuum ultraviolet. B. A. Morrow, 2447.
- Muir, W. B.**
Comparison of Harman and cooling couple methods for Z determination. W. B. Muir, 971.
Electron transport and thermoelectric properties of n-type $\text{Bi}_{1.75}\text{Sb}_{0.25}\text{Te}$. W. B. Muir, P. T. Chiang, and C. H. Champness, 2797.
- Muldrew, D. B.**
A novel ionospheric cyclotron resonance phenomenon observed on Alouette I data. D. B. Muldrew and E. L. Hagg, 925.
- Muller, B. H.**
Comment on the articles: "Nuclear magnetic relaxation by intermolecular dipole-dipole interactions", and "Nuclear spin relaxation in liquid and solid methane: Isotope effects". B. H. Muller, 2511.
- Murdock, E. G.**
Radiation effects in precision resistance thermometry. I. Radiation losses in transparent thermometer sheaths. E. H. McLaren and E. G. Murdock, 2631.
Radiation effects in precision resistance thermometry. II. Illumination effect on temperature measurement in water triple-point cells packed in crushed ice. E. H. McLaren and E. G. Murdock, 2653.
- Mysak, L.**
Behavior of the Schwarzschild singularity in superimposed gravitational fields. L. Mysak and G. Szekeres, 617.
- Nair, K. P. R.**
Rotational analysis of the $E-X$ and $C-X$ band systems of the CuI molecule. K. P. R. Nair and K. N. Upadhy, 1267.
- Naito, K.**
Internal gravity-shear waves in the troposphere. I. Phase velocities. K. Naito, 2259.
Internal gravity-shear waves in the troposphere. II. Wave amplitudes. K. Naito, 2275.
Internal gravity-shear waves in the troposphere. III. Perturbation of smoke trails. K. Naito and D. R. Hay, 2287.
- Narasimham, N. A.**
A new band system of AlO . S. L. N. G. Krishnamachari, N. A. Narasimham, and M. Singh, 2513.
- Neale, M. J.**
Radar equipment for continuous meteor observations. M. J. Neale, 1021.
A megawatt pulse radar transmitter for meteor research. M. J. Neale, 1573.
- Neeson, J. F.**
Directional correlations in ^{171}I . J. F. Neeson, J. P. Roalsvig, and R. G. Arns, 1313.
- Nelms, G. L.**
The Alouette II satellite. G. L. Nelms, R. E. Barrington, J. S. Belrose, T. R. Hartz, I. B. McDiarmid, and L. H. Brace, 1419.
- Newton, T. D.**
Structure of a bunch of charge in an ideal accelerator. T. D. Newton, 3137.
- Nodwell, R. A.**
Relative transition probabilities in neon. J. C. Irwin and R. A. Nodwell, 1781.

Nogami, Y.

On the superconductivity approximation for the nuclear pairing interaction. J. F. Goodfellow and Y. Nogami, 1321.

Ogata, H.

Beta-gamma angular correlation in ^{74}As . E. E. Habib, H. Ogata, and W. Armstrong, 1157.

Okazaki, A.

The ratio of the direct to the cumulative yield of ^{136}Xe in the thermal neutron fission of ^{235}U , ^{233}U , ^{239}Pu , and ^{241}Pu . A. Okazaki, W. H. Walker, and C. B. Bigham, 237.

Ollerhead, R. W.

Properties of levels at 6.69 and 6.88–6.89 MeV in ^{28}Si . R. J. A. Lévesque, R. W. Ollerhead, E. W. Blackmore, and J. A. Kuehner, 1087.

Orman, B. A.

On a certain nonlocal potential. V. de la Cruz, B. A. Orman, and M. Razavy, 629.

Osborne, F. J. F.

Measurements of anisotropic plasmas using a turnstile multiple-probe polarimeter. M. P. Bachynski, F. J. F. Osborne, and B. W. Gibbs, 1649.

Pai, H. L.

The (n, p) cross sections of titanium isotopes for neutron energies between 13.6 MeV and 19.5 MeV. H. L. Pai, 2337.

Pai, S. T.

Induced infrared absorption of deuterium in deuterium – foreign gas mixtures. S. T. Pai, S. P. Reddy, and C. W. Cho, 2893.

Palmer, F. H.

A method of determining cross-correlation coefficients of time-varying signals. F. H. Palmer and G. F. Lyon, 415.

Pan, P. J.

Experimental evidence for the deformation of ^{128}Ba . P. J. Pan, Y. S. Horowitz, R. B. Moore, and R. Barton, 1029.

Parkinson, W. H.

On the sp^2 configurations and configuration-mixing in the first spectra of indium (In I) and thallium (Tl I). W. R. S. Garton, W. H. Parkinson, and E. M. Reeves, 1745.

Parsons, J. R.

Electron microscope observation of atomic planes and atomic positions in germanium. J. R. Parsons and C. W. Hoelke, 2685.

Paulson, K. V.

Fluctuations in brightness from quiet-form auroras. K. V. Paulson and G. G. Shepherd, 837.

Short-lived brightness oscillations in active auroras. K. V. Paulson and G. G. Shepherd, 921.

Peat, F. D.

A simple density matrix approach to atomic spectra. F. D. Peat and R. J. C. Brown, 1349.

Perz, J. M.

Attenuation of ultrasonic waves of arbitrary polarization and propagation direction in superconductors. J. M. Perz, 1765.

Petch, H. E.

The structural basis of ferroelectricity in colemanite. F. N. Hainsworth and H. E. Petch, 3083.

Pitre, B.

Sensitized fluorescence in vapors of alkali metals. VI. Energy transfer in collisions between rubidium and inert gas atoms. B. Pitre, F.S.C., A. G. A. Rae, and L. Krause, 731.

Poll, J. D.

On the vibrational frequencies of the hydrogen molecule. J. D. Poll and G. Karl, 1467.

Portner, F. M.

The scattering of protons on ^7Li , ^9Be , and ^{12}C at 100 MeV. S. K. Mark, P. M. Portner, and R. B. Moore, 2961.

Prescott, J. R.

Excited states of ^{12}C from n- γ angular correlations and gamma branching ratios. A. S. Rupaal, B. L. White, and J. R. Prescott, 1213.

Prestwich, W. V.

Neutron separation energies of ^{148}Nd – ^{148}Nd , ^{149}Sm – ^{149}Sm , and ^{164}Dy – ^{164}Dy . L. B. Hughes, T. J. Kennett, W. V. Prestwich, and B. J. Wall, 919.

The level structure of ^{190}Rh observed in thermal neutron capture. L. B. Hughes, T. J. Kennett, and W. V. Prestwich, 2041.

Priestley, E. B.

Some characteristic values of Hartree-Fock functions. E. B. Priestley and S. Fraga, 1933.

Pulley, H. C.

Predicted radio-frequencies and intensities of $\Delta n = -1$ emission lines of atomic hydrogen. H. C. Pulley and W. L. H. Shuter, 1663.

Radojević, V.

Calculation of rotation gamma-vibration interaction in transuranic nuclei. V. Radojević, 2176.

Rae, A. G. A.

Sensitized fluorescence in vapors of alkali metals. VI. Energy transfer in collisions between rubidium and inert gas atoms. B. Pitre, F.S.C., A. G. A. Rae, and L. Krause, 731.

- Raemer, H. R.**
A mathematical model for analysis of wave propagation in a linearized vertically nonuniform partially ionized gas. H. R. Raemer, 1047.
- Raghavacharyulu, I. V. V.**
A new compatibility relation of space-group representations. I. V. V. Raghavacharyulu and C. B. Shrestha, 444.
- Ramsay, D. A.**
The electronic absorption spectrum of the propargyl radical. D. A. Ramsay and P. Thistlethwaite, 1381.
- Rao, P. R.**
Structure of the band spectrum of the CuI molecule. I. Rotational structure of the *E* system of $^{63}\text{Cu}^{127}\text{I}$. P. R. Rao and K. V. S. R. Apparao, 2241.
Structure of the band spectrum of the CuI molecule. II. Rotational structure of the *C* and *D* systems of $^{63}\text{Cu}^{127}\text{I}$. P. R. Rao and K. V. S. R. Apparao, 2247.
- Rastall, P.**
Relativistic precession of a spinning satellite. P. Rastall, 3109.
- Razavy, M.**
On a certain nonlocal potential. V. de la Cruz, B. A. Orman, and M. Razavy, 629.
- Reddy, S. P.**
Induced infrared absorption of deuterium in deuterium - foreign gas mixtures. S. T. Pai, S. P. Reddy, and C. W. Cho, 2893.
- Reeves, E. M.**
On the sp^3 configurations and configuration-mixing in the first spectra of indium (In I) and thallium (Tl I). W. R. S. Garton, W. H. Parkinson, and E. M. Reeves, 1745.
- Riccias, H. D.**
Infrared reflection of heavily doped p-type gallium arsenide. H. D. Riccias and J. E. Bertie, 1665.
- Roalsvig, J. P.**
Directional correlations in ^{127}I . J. F. Neeson, J. P. Roalsvig, and R. G. Arns, 1313.
- Robinson, M. C.**
The static dielectric constant of NaCl, KCl, and KBr at temperatures between 4.2 °K and 300 °K. M. C. Robinson and A. C. Hollis Hallett, 2211.
- Roeder, R. C.**
On Jordan's gravitational theory. R. C. Roeder, 1935.
- Rolfe, J.**
Polarization capacitance of doped potassium bromide crystals. H. J. Wintle and J. Rolfe, 965.
- Rubenstein, M.**
Reflectance of GaAs, GaP, and the $\text{GaAs}_{1-x}\text{P}_x$ alloys. A. G. Thompson, J. C. Woolley, and M. Rubenstein, 2927.
- Rumin, N.**
Field dependence of spin-lattice relaxation times of Cr^{3+} . N. Rumin, 1387.
- Rundle, H. N.**
The decay over long distances of rocket-released lithium due to diffusion, winds, and chemical reactions. W. A. Gault and H. N. Rundle, 1099.
- Rupaal, A. S.**
Excited states of ^{14}C from n - γ angular correlations and gamma branching ratios. A. S. Rupaal, B. L. White, and J. R. Prescott, 1213.
- Rystephanick, R. G.**
Phonon broadening of impurity spectral lines. III. Diagram technique. R. Barrie and R. G. Rystephanick, 109.
- St. John, G. E.**
Pressure broadening of the rotational Raman lines of some simple gases. K. S. Jammu, G. E. St. John, and H. L. Welsh, 797.
- Santaram, C.**
The band spectrum of HgA^+ . C. Santaram and J. G. Winans, 1517.
- Santry, D. C.**
Excitation curves for the $(n, 2n)$, (n, p) , and (n, α) reactions of ^{64}Cu . D. C. Santry and J. P. Butler, 1183.
- Saran, A.**
Mutual diffusion in polar-nonpolar gases: Krypton - sulphur dioxide and krypton - diethyl ether. B. N. Srivastava and A. Saran, 2595.
- Sarat Chandra Babu, Y. K.**
Rotational analysis of four bands of the *A-X* system of BiO in the near ultraviolet. Y. K. Sarat Chandra Babu and P. Tiruvenganna Rao, 705.
- Scott, J. C. W.**
The gravitokinetic field and the orbit of mercury. J. C. W. Scott, 1147.
Photons in the gravitational field. J. C. W. Scott, 1639.
- Sears, V. F.**
Theory of the interaction between the lattice vibrations and the rotational motion in solid hydrogen. J. Van Kranendonk and V. F. Sears, 313.
The law of corresponding states and cold neutron scattering by liquids. V. F. Sears, 867.

- Theory of cold neutron scattering by homonuclear diatomic liquids. I. Free rotation. V. F. Sears, 1279.
- Theory of cold neutron scattering by homonuclear diatomic liquids. II. Hindered rotation. V. F. Sears, 1299.
- Sen, S. N.**
Radio-frequency breakdown in a superimposed d-c. field. S. N. Sen and B. Bhattacharjee, 3273.
- Senior, T. B. A.**
The scattering from acoustically hard and soft prolate spheroids for axial incidence. T. B. A. Senior, 655.
The scattering of an electromagnetic wave by a spheroid. T. B. A. Senior, 1353.
- Seshadri, S. R.**
Radiation from a current strip in a uniaxially anisotropic plasma medium. S. R. Seshadri, 207.
Effect of ion sheath on radiation in a magnetoionic medium. I. Source current parallel to the magnetostatic field. S. R. Seshadri and K. L. Bhatnagar, 1401.
Effect of static magnetic field on radiation through a plasma sheath. S. R. Seshadri and G. L. Yip, 1941.
Radiation from an electric dipole in a magnetoplasma. S. R. Seshadri, 3053.
- Shand, J. A.**
Some quantitative characteristics of the Schumann-ELF natural electromagnetic background. J. A. Shand, 449.
- Shapiro, M. M.**
The collision-induced fundamental and first overtone bands of oxygen and nitrogen. M. M. Shapiro and H. P. Gush, 949.
- Sharma, S. R.**
Wave propagation in magnetoplasmas. S. R. Sharma, 255.
- Sharp, R. T.**
On the degeneracy problem in $Su(3)$. C. K. Chew and R. T. Sharp, 2789.
- Shaw, D. E.**
The ν_{10} and ν_{11} Raman bands of gaseous ethane. D. W. Lepard, D. E. Shaw, and H. L. Welsh, 2353.
- Shepherd, G. G.**
Fluctuations in brightness from quiet-form auroras. K. V. Paulson and G. G. Shepherd, 837.
Short-lived brightness oscillations in active auroras. K. V. Paulson and G. G. Shepherd, 921.
- Shrestha, C. B.**
A new compatibility relation of space-group representations. I. V. V. Raghavacharyulu and C. B. Shrestha, 444.
- Shuter, W. L. H.**
Predicted radio-frequencies and intensities of $\Delta n = -1$ emission lines of atomic hydrogen. H. C. Pulley and W. L. H. Shuter, 1663.
- Simmons, J. D.**
The forbidden $I^1\Sigma^- \rightarrow X^1\Sigma^+$ absorption bands of carbon monoxide. G. Herzberg, J. D. Simmons, A. M. Bass, and S. G. Tilford, 3039.
- Simons, S.**
The temperature distribution produced by acoustic absorption. I. Macroscopic treatment. S. Simons, 3001.
The temperature distribution produced by acoustic absorption. II. Boltzmann equation approach. S. Simons, 3013.
- Sinclair, G.**
Numerical solutions to electromagnetic scattering from strips, finite wedges, and notched circular cylinders. J. B. Billingsley and G. Sinclair, 3217.
- Singh, M.**
A new band system of AIO. S. L. N. G. Krishnamachari, N. A. Narasimham, and M. Singh, 2513.
- Smrz, P.**
Absorptive corrections to the nucleon exchange term in elastic πN scattering. P. Smrz and H. C. von Baeyer, 105.
- Snowdon, R. L.**
Continuous-heating adiabatic calorimeter for the range 300 to 475 °K—The specific heat of $\alpha\text{-Al}_2\text{O}_3$. D. L. Martin and R. L. Snowdon, 1449.
- Sood, N. K.**
Neutron potentials for nuclei in an isotopic sequence. P. C. Sood and N. K. Sood, 1719.
- Sood, P. C.**
Coulomb correction term in the optical model potential for proton scattering. P. C. Sood, 1203.
Neutron potentials for nuclei in an isotopic sequence. P. C. Sood and N. K. Sood, 1719.
Isospin potential term with local and nonlocal interactions. P. C. Sood, 2053.
- Srivastava, B. N.**
Mutual diffusion in polar-nonpolar gases: Krypton-sulphur dioxide and krypton-diethyl ether. B. N. Srivastava and A. Saran, 2595.

- Stansbury, E. J.**
Time-dependent characteristics of the heterogeneous nucleation of ice. G. Vali and E. J. Stansbury, 477.
- Stevenson, R.**
Compressions of CoCl_2 , FeCl_2 , NiCl_2 , EuS , MnF_2 , RbMnF_3 , and NiF_2 . R. Stevenson, 281.
High magnetic field susceptibility of chromium. R. Stevenson, 283.
Magnon sidebands in CsMnF_3 . R. Stevenson, 3269.
- Sundaresan, M. K.**
Kinetic equation for a plasma in a strong static magnetic field. M. K. Sundaresan, 247.
- Swanson, M. L.**
Low-temperature neutron-irradiation damage and its recovery in high-purity germanium. M. L. Swanson, 2181.
Low temperature recovery of deformed zirconium. M. L. Swanson, 3241.
- Szekeres, G.**
Behavior of the Schwarzschild singularity in superimposed gravitational fields. L. Mysak and G. Szekeres, 617.
- Tam, K.-K.**
A variational principle in relativistic magnetohydrodynamics. K.-K. Tam, 2403.
- Tamir, T.**
Scattering of electromagnetic waves by a sinusoidally stratified half-space. I. Formal solution and analytic approximations. T. Tamir and H. C. Wang, 2073.
Scattering of electromagnetic waves by a sinusoidally stratified half-space. II. Diffraction aspects at the Rayleigh and Bragg wavelengths. T. Tamir, 2461.
- Taras, P.**
 ^{35}Cl and the unified model. P. Taras, 1563.
- Tatum, J. B.**
Hönl-London factors for $^3\Sigma^+ \rightarrow ^3\Sigma^+$ transitions. J. B. Tatum, 2944.
- Taylor, R.**
The calculation of the electron-ion matrix element by the spherical cellular method: Na. R. Taylor, R. A. Moore, and S. H. Vosko, 1995.
- Teichmann, J.**
On the propagation of electromagnetic waves in a plasma with negative ions. J. Teichmann, 2973.
- Templeton, W. M.**
Corrugated-plate spark counters. G. G. Eichholz and W. M. Templeton, 229.
- Thistlethwaite, P.**
The electronic absorption spectrum of the propargyl radical. D. A. Ramsay and P. Thistlethwaite, 1381.
- Thode, H. G.**
The thermal-neutron fission yields of ^{232}Th . J. W. Harvey, W. B. Clarke, H. G. Thode, and R. H. Tomlinson, 1011.
- Thompson, A. G.**
Reflectance of GaAs, GaP, and the $\text{GaAs}_{1-x}\text{P}_x$ alloys. A. G. Thompson, J. C. Woolley, and M. Rubenstein, 2927.
- Thyer, J. R.**
ESR spectra of Fe^{+3} in single crystals of andalusite. F. Holuj, J. R. Thyer, and N. E. Hedgecock, 509.
- Tilford, S. G.**
The forbidden $I^1\Sigma^- \rightarrow X^1\Sigma^+$ absorption bands of carbon monoxide. G. Herzberg, J. D. Simmons, A. M. Bass, and S. G. Tilford, 3039.
- Tiruvenganna Rao, P.**
Rotational analysis of four bands of the $A-X$ system of BiO in the near ultraviolet. Y. K. Sarat Chandra Babu and P. Tiruvenganna Rao, 705.
- Tomlinson, R. H.**
The thermal-neutron fission yields of ^{232}Th . J. W. Harvey, W. B. Clarke, H. G. Thode, and R. H. Tomlinson, 1011.
The half-life of rubidium-87. C. C. McMullen, K. Fritze, and R. H. Tomlinson, 3033.
- Trainor, L. E. H.**
Liquid helium and the properties of finite Bose-Einstein assemblies. D. F. Goble and L. E. H. Trainor, 27.
- Travis, D. N.**
The absorption spectrum of CNC. A. J. Merer and D. N. Travis, 353.
Spin-orbit coupling in the $A^3\Delta$ state of CCl . A. J. Merer, D. N. Travis, and J. K. G. Watson, 447.
Absorption spectra of HCCl and DCCl . A. J. Merer and D. N. Travis, 525.
Rotational analysis of bands of the HCF molecule. A. J. Merer and D. N. Travis, 1541.
- Trubatch, J.**
The massive spin-two field. S. Deser, J. Trubatch, and S. Trubatch, 1715.
- Trubatch, S.**
The massive spin-two field. S. Deser, J. Trubatch, and S. Trubatch, 1715.

- Truran, J. W.**
Thermonuclear reactions in medium and heavy nuclei. J. W. Truran, C. J. Hansen, A. G. W. Cameron, and A. Gilbert, 151.
The approach to nuclear statistical equilibrium. J. W. Truran, A. G. W. Cameron, and A. Gilbert, 563.
- Tsuruta, S.**
Cooling and detectability of neutron stars. S. Tsuruta and A. G. W. Cameron, 1863.
Some effects of nuclear forces on neutron-star models. S. Tsuruta and A. G. W. Cameron, 1895.
- Upadhyaya, K. N.**
Rotational analysis of the $E-X$ and $C-X$ band systems of the CuI molecule. K. P. R. Nair and K. N. Upadhyaya, 1267.
- Vali, G.**
Time-dependent characteristics of the heterogeneous nucleation of ice. G. Vali and E. J. Stansbury, 477.
- van der Meer, M. P.**
The thermal conductivity of platinum between 300 and 1 000 °K. M. J. Laubitz and M. P. van der Meer, 3173.
- Vanderslice, T.**
Validity of the Jarman-Sandeman series for calculating potential curves of diatomic molecules. R. H. Davies and J. T. Vanderslice, 219.
- van Heerden, I. J.**
The charge spectrum and interactions of relativistic heavy nuclei in the primary cosmic radiation. B. Judek and I. J. van Heerden, 1121.
- Van Kranendonk, J.**
Theory of the interaction between the lattice vibrations and the rotational motion in solid hydrogen. J. Van Kranendonk and V. F. Sears, 313.
Theory of the spin-lattice interaction in paramagnetic salts of iron-group ions. J. Van Kranendonk and Y. Y. Lee, 1613.
Semiclassical theory of phonon radiation processes. J. Van Kranendonk, 1699.
Calculation of the pressure broadening of rotational Raman lines due to multipolar and dispersion interaction. C. G. Gray and J. Van Kranendonk, 2411.
- Van Thanh, N.**
Bande de vibration-rotation $\nu_1 + \nu_4$ de l'iodure de méthyle tridéutérié vers 4 500 cm^{-1} . Mise en évidence d'une résonance de Fermi. C. Joffrin, N. Van Thanh, et P. Barchewitz, 2695.
- van Wijngaarden, A.**
The ionoluminescence of $\text{Zn}_2\text{SiO}_4\text{:Mn}$ under negative and molecular ion bombardment. A. van Wijngaarden, L. Hastings, and E. S. Koteles, 789.
- Vogan, E. L.**
Remote measurement of ionospheric absorption using meteor signals. Y. Chu, E. L. Vogan, and P. A. Forsyth, 2173.
- von Baeyer, H. C.**
Absorptive corrections to the nucleon exchange term in elastic πN scattering. P. Smrz and H. C. von Baeyer, 105.
- Vörös, T.**
New alpha-decay barrier penetrabilities with Igo potential: Even-mass nuclei. L. Kohlmann and T. Vörös, 1479.
New alpha-decay barrier penetrabilities with Igo potential: Odd-mass nuclei. L. Kohlmann and T. Vörös, 3047.
- Vosko, S. H.**
The calculation of the electron-ion matrix element by the spherical cellular method: Na. R. Taylor, R. A. Moore, and S. H. Vosko, 1995.
The screening function of an interacting electron gas. D. J. W. Geldart and S. H. Vosko, 2137.
- Wait, J. R.**
On the theory of wave propagation in a bounded compressible plasma. J. R. Wait, 293.
Electromagnetic radiation from an acoustic point source within a compressible plasma bubble. J. R. Wait, 467.
Radiation from a spherical antenna with an anisotropic plasma sheath. J. R. Wait, 2303.
Electromagnetic fields of a dipole over an anisotropic half-space. J. R. Wait, 2387.
- Walker, W. H.**
The ratio of the direct to the cumulative yield of ^{136}Xe in the thermal neutron fission of ^{235}U , ^{238}U , ^{239}Pu , and ^{241}Pu . A. Okazaki, W. H. Walker, and C. B. Bigham, 237.
Cross sections and resonance integrals for the neutron activation of ^{109}Rh . W. H. Walker and L. A. Copley, 1985.
- Wall, B. J.**
Neutron separation energies of ^{143}Nd – ^{144}Nd , ^{149}Sm – ^{150}Sm , and ^{164}Dy – ^{165}Dy . L. B. Hughes, T. J. Kennett, W. V. Prestwich, and B. J. Wall, 919.
- Wallace, P. R.**
Polarization of helicons in n-type silicon and germanium. P. R. Wallace, 442.

- Magnetoplasma excitations in lead telluride. P. R. Wallace, 1937.
Theory of magnetoplasma resonances in n-type silicon and germanium. II. P. R. Wallace, 2495.
- Walmsley, D. G.**
Anisotropy of the energy gap in superconducting lead-bismuth alloys. C. K. Campbell, R. C. Dynes, and D. G. Walmsley, 2601.
- Wang, H. C.**
Scattering of electromagnetic waves by a sinusoidally stratified half-space. I. Formal solution and analytic approximations. T. Tamir and H. C. Wang, 2073.
- Wang, H. S. C.**
Nonlinear plasma oscillations with trapped electrons. H. S. C. Wang, 1109.
- Warner, R. E.**
Bremsstrahlung production in 48-MeV p-p collisions. R. E. Warner, 1225.
- Watanabe, T.**
Quasi-linear theory of transverse plasma instabilities with applications to hydromagnetic emissions from the magnetosphere. T. Watanabe, 815.
- Watson, J. K. G.**
Spin-orbit coupling in the $A^3\Delta$ state of CCl_4 . A. J. Merer, D. N. Travis, and J. K. G. Watson, 447.
- Weichman, F. L.**
Hall effect and electrical conductivity of Cu_2O monocrystals. E. Fortin and F. L. Weichman, 1551.
- Weissfloch, C. F.**
The effect of elastic anisotropy on spin-lattice relaxation in ruby. C. F. Weissfloch, 2509.
Spin-lattice relaxation by the direct process of Fe^{3+} in potassium cobalticyanide. C. F. Weissfloch, 3185.
- Welsh, H. L.**
Pressure broadening of the rotational Raman lines of some simple gases. K. S. Jammu, G. E. St. John, and H. L. Welsh, 797.
The ν_{10} and ν_{11} Raman bands of gaseous ethane. D. W. Lepard, D. E. Shaw, and H. L. Welsh, 2353.
- Werner, R. D.**
The electron capture to negative electron emission branching ratio for ^{140}Pr decay. I. H. Crocker, R. D. Werner, and W. Cherrin, 409.
The reactor neutron capture cross section of ^{121}Sb . R. Courtemanche, T. A. Eastwood, and R. D. Werner, 2956.
- White, B. L.**
Excited states of ^{12}C from n- γ angular correlations and gamma branching ratios. A. S. Rupaal, B. L. White, and J. R. Prescott, 1213.
- Whitton, J. L.**
Ion-bombardment-induced radiation damage in some ceramics and ionic crystals: Determined by electron diffraction and gas release measurements. H. J. Matzke and J. L. Whitton, 995.
The effect of crystallinity and bombardment dose on the penetration of 40-keV xenon ions in ionic crystals and ceramics. J. L. Whitton and H. J. Matzke, 2905.
- Williams, E. W.**
Electrical properties of heavily doped InSb. J. C. Woolley and E. W. Williams, 1200.
- Wilson, B. G.**
Solar minimum measurements of fast neutrons at high altitude. G. A. Baird and B. G. Wilson, 2131.
- Winans, J. G.**
The band spectrum of HgA^+ . C. Santaram and J. G. Winans, 1517.
- Winderman, J. B.**
Method of reducing side lobes of directive antennas. L. J. Lader and J. B. Winderman, 2765.
- Wintle, H. J.**
Polarization capacitance of doped potassium bromide crystals. H. J. Wintle and J. Rolfe, 965.
- Wlochowicz, R.**
Detecting micrometeoroids acoustically from rockets. R. Wlochowicz, 1.
- Woods, S. B.**
The thermal conductivity of pure lead. T. M. Dauphinee, L. D. Armstrong, and S. B. Woods, 2035.
The low-temperature thermal conductivity, electrical resistivity, and thermoelectric power of dilute silver alloys with manganese. H. L. Malm and S. B. Woods, 2293.
- Woolley, J. C.**
Electrical properties of heavily doped InSb. J. C. Woolley and E. W. Williams, 1200.
High-temperature Hall effect in GaSb. J. C. Woolley, 2709.
Conduction band of GaSb. H. B. Harland and J. C. Woolley, 2715.
Reflectance of GaAs, GaP, and the $\text{GaAs}_{1-x}\text{P}_x$ alloys. A. G. Thompson, J. C. Woolley, and M. Rubenstein, 2927.

Yip, G. L.

Effect of static magnetic field on radiation through a plasma sheath. S. R. Seshadri and G. L. Yip, 1941.

York, D.

Least-squares fitting of a straight line. D. York, 1079.

Youdelis, W. V.

Directional solidification of aluminium-copper alloys in a magnetic field. W. V. Youdelis and R. C. Dorward, 139.

Hall-field electrotransport of carbon and nitrogen in α iron. M. J. Bibby and W. V. Youdelis, 2363.

Direct electric-field electrotransport of carbon and nitrogen in iron and iron alloys. M. J. Bibby, L. C. Hutchinson, and W. V. Youdelis, 2375.

Zelevnik, F. J.

Equilibrium computations for multicomponent plasmas. F. J. Zelevnik, and S. Gordon, 877.

Zganjar, E. F.

The IEC method and conversion coefficients of the 605-keV transition in ^{134}Ba . E. F. Zganjar and J. H. Hamilton, 549.

Zitron, N. R.

Diffraction by a slit of intermediate width in an anisotropic plasma. N. R. Zitron, 1067.

A note on scattering of cylindrical waves by a circular cylinder. N. R. Zitron and J. Davis, 2941.

